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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/433,730 11/03/99 JAFFE

S 33754/JWE/B6

EXAMINER

WM02/0118

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TSE,Y

ART UNIT

PAPER NUMBER

2634

DATE MAILED:

01/18/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/433,730

Applicant(s)

Jaffe et al.

Examiner

Young Tse

Group Art Unit

2634



☒ Responsive to communication(s) filed on Oct 30, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1035 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-104 is/are pending in the application

Of the above, claim(s) 1-9 and 19-87 is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 10-18 and 88-104 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☒ The drawing(s) filed on Nov 3, 1999 is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 6, 8, 10

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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DETAILED ACTION

Election/Restriction

1. Applicant's election without traverse of claims 10-18 and 88-104 in Paper No. 12 is acknowledged.
2. Claims 1-9 and 19-87 have been withdrawn from further consideration by the examiner, 37 CFR 1.142(b) as being drawn to a non-elected invention. Election was made without traverse in paper No. 12.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: the reference sign "10" is not shown in Fig. 1 as mentioned on page 19, line 11; the summing node "80" shown in Fig. 7 is a multiplier (see page 32, lines 34-35 and page 33, line 5); and the reference sign "130" is not shown in Fig. 10 as mentioned on page 38, lines 16-17. Correction is required.
4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: the summing node "80" mentioned on page 32, lines 34-35 and page 33, line 5 is not shown in Fig. 7. Correction is required.

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5. Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect can be deferred until the application is allowed by the examiner.

Specification

6. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

7. The disclosure is objected to because of the following informalities: on page 20, line 23, "28" should be changed to --30-- and on page 21, line 13, "28" should be changed to --22--.

Appropriate correction is required. For the formality of the application under the present office practice, applicant(s) is required to replace "Claims" with "I or We Claim", "The invention Claimed Is" (or the equivalent) before the Claims part of the specification of the instant application. See MPEP 608.01(m).

Claim Objections

8. Claims 88, 96, 101 are objected to because of the following informalities: in claim 88, line 2, "an accordance" should be changed to --in accordance-- and line 26, "an adaptive decision feedback equalizer" should be changed to --the adaptive decision feedback equalizer-- for clarity; in claim 96, line 2, "an accordance" should be changed to --in accordance-- and line 20, "a

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decision directed carrier recovery loop” should be changed to --a decision directed carrier phase recovery loop--; in claim 101, line 2, “an accordance” should be changed to --in accordance--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claims 10-18 and 88-104 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The configurations of claims 10-18 and 88-104 do not correspond to the disclosure of Fig. 1 since Applicants elected the embodiment of Fig. 1 corresponding to claims 10-18 and 88-104. Applicants are requested to point out what block elements shown in Fig. 1 are the first and second nested tracking loops and the third tracking loop, as recited in claims 10, 88, 96, and 101; the first high pass filter and the second low pass filter for a lower or higher cut-off frequency of about one fourth or one half of a sampling frequency, as recited in claims 12-16; the phase/frequency detector and the oscillator circuit, as recited in claim 18; the equivalent filter, the decision directed carrier phase recovery loop, and the maximum likelihood sequence estimation circuit, as recited in

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claims 88 96, and 1000; the real to imaginary signal converter and the time compensation circuit, as recited in claim 92; and the Hilbert transform filter, as recited in claims 93-95.

11. Claims 12-18 and 101-104 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 12, line 6, the phrase "a second low pass filter" is indefinite since no first low pass filter has been recited in claims 10-12.

In claim 101, lines 8-9, the phrase "reference synthesizer circuits" lacks antecedent basis.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The prior art Patel et al. (U.S. Patent No. 5,479,449), Scarpa (U.S. Patent No. 5,487, 186), Strolle et al. (U.S. Patent No. 5,588,025), Lane et al. (U.S. Patent No. 5,648, 923), Scarpa et al. (U.S. Patent No. 5,673,293), Shiue et al. (U.S. Patent No. 5,712,873), Cupo (U.S. Patent No. 5,841,814), Lee (U.S. Patent No. 5,933,460), Strolle et al. (U.S. Patent No. 6,005,640), Maalej et al. (U.S. Patent No. 6,160,443), and Nielsen et al. (U.S. Patent No. 6,166,594) are made of record as describing a digital communication system capable of receiving and demodulating signal information content that has been modulated and transmitted in accordance

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with a variety of modulation formats, such as, a vestigial sideband (VSB) and quadrature amplitude modulation (QAM).

Any response to this action should be mailed to:

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or faxed to:

(703) 308-9051 or (703) 308-9052, (for formal communications intended for entry)

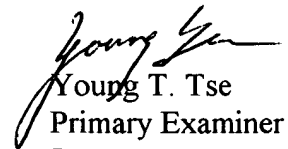
Or:

(703) 308- 6743, (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Young Tse whose telephone number is (703) 305-4736. The examiner can normally be reached on Monday-Friday from 9:30 AM to 5:30 PM.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.


Young T. Tse
Primary Examiner
January 15, 2001